

**Summer internship report**  
**At**  
**Fortis memorial research institute**  
**(April 4<sup>th</sup> to June 17<sup>th</sup>, 2022)**

**A report**  
**By**  
**Ayush Pathak**

**PGDM (Hospital and health management)**  
**2021-2023**



**International institute of health management research, New Delhi**

## FEEDBACK FORM

(IIHMR MENTOR)

Name of the Student: Ayush Pathak

Summer Internship Institution: Fortis Memorial Research Institute

Area of Summer Internship: Operations (IPD) (Turn Around Time at IPD admission)

Attendance: Satisfactory

Objectives met: Yes

Deliverables: Satisfactory

Strengths: Communication, Data Analysis, Dedicated

Suggestions for Improvement:  Increase Process and steps  
more Parapathia in descerns

Signature of the Officer-in-Charge (Internship)

Date: 01/07/22

Place:

New Delhi

## ACKNOWLEDGEMENT

Summer training is a golden opportunity for learning and self-development. I consider myself fortunate for having been provided with an opportunity to undergo my summer training at Fortis Memorial Research Institute, Gurugram, Haryana

In this institute I have had the privilege to get to know many people who generously shared their experiences and knowledge with me.

I would like to express my sincere gratitude to **Mr. Amandeep Singh (PCS-Head)** for their continuous guidance, who in spite of being busy with their duties, took time to hear and guide me, gave helpful advice and constructive comments throughout the project. Their valuable input made this project possible.

I am also very thankful to all the staff of **FMRI** for their attention to my work and helping me, which greatly added to my project. The administrative staff of the hospital has been very helpful to me and I would like to express my deep gratitude to all.

I would like to thank IIHMR Delhi for this opportunity and **Dr. Nikita Sabharwal** for the guidance under her mentorship.

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## **ABBREVIATIONS**

<b>ABBREVIATIONS</b>	<b>MEANING</b>
<b>FMRI</b>	Fortis Memorial Research Institute
<b>OPD</b>	Out Patient Department
<b>IPD</b>	In – Patient Department
<b>TAT</b>	Turnaround time
<b>H4U</b>	Health4U department
<b>TPA</b>	Third Party Administration
<b>HIS</b>	Hospital information system

## Chapter -1 Introduction



Fortis Memorial Research Institute (FMRI), Gurugram, is a multi-super specialty, quaternary care hospital with an enviable international faculty, reputed clinicians, including super-sub-specialists and specialty nurses, supported by cutting-edge technology. FMRI is an advanced center of excellence in Robotic Surgery, Neurosciences, Oncology, Renal Sciences, BMT, Organ Transplants, Orthopedics, Cardiac Sciences and Obstetrics & Gynecology. Set on a spacious 11-acre campus with a potential to grow to 1000 beds, this 'Next Generation Hospital' is built on the foundation of 'Trust' and rests on the four strong pillars of Talent, Technology, Infrastructure and Service.

With the goal to dispense quaternary care to the community in a compassionate, dignified and distinctive way, Fortis Memorial Research Institute, Gurgaon, a premium hospital, endeavors to be the 'Mecca of Healthcare', that is, the ultimate health care destination for Asia-Pacific and beyond. Covering an area of 11 acres with 259 beds, Fortis Memorial Research Institute, Gurgaon, brings together an outstanding pool of doctors, assistants and medical staff to treat patients. With its one-of-its-kind service, the medical institute integrates modern & traditional forms of medicine to dispense accessible and affordable health care. The hospital is built on the foundation of "Trust" and rests on the four strong pillars Talent, Technology, Infrastructure and Service. The exteriors and interiors of the hospital are done up to give an aura of wellness to the

mind, body and soul. The hospital with its landscaped greens, serene water bodies, amazing sculptures and sunlit interiors has been designed to give a calming effect. The hospital has various centers of excellence which include Cardiac Sciences, Neurosciences, Emergency & Trauma, Bone & Joint, Renal Sciences, Gastro Sciences, Critical Care and Organ Transplants. Each of these is committed to providing world-class treatment. The other clinical specialties include Dental, ENT, General Surgery, Gynecology & Obstetrics, Internal Medicine, Nuclear Medicine, Oncology, Pediatrics, Pulmonology, Robotic Surgery, Stem Cell Therapy and many more. The Fortis Memorial Research Institute has a complete gamut of therapeutic and diagnostic technologies that are the “first” in India, in Asia and in some cases the “first” in the world too. The hospital is the first institute in the world to have introduced Radiation Therapy in collaboration with the leading technology innovators Brain Lab and Elekta. The hospital also introduced the world’s first digital broadband MRI – the 3-Tesla Digital MRI. The Fortis Memorial Research Institute introduced the concepts of Stem Cell Lab and Open Lab in India. These are just a few to name, there are many more contributions to the credit of the institute. The hospital houses some unique world-class facilities for the attendants of the patients too, which include Tummy Luck, R&R Lounge, Meditorium, Holistic Health, Mamma Mia, Retail Therapy, Crèche, Health 4 U, Pevonia and Forti plex.

## **What is Healthcare Operations Management?**

Operations management in healthcare refers to overseeing the day-to-day practices of a healthcare facility that impact the client experience and organizational goals. These practices are typically broken down into three components: administrative, financial, and legal.

- **Administrative** tasks may include keeping detailed records of medical and office supplies, scheduling employees, responding to questions from staff and customers, and updating patient records.
- **Financial** responsibilities often involve managing claims, medical billing, revenue cycle management, and value-based reimbursement.
- **Legal** practices usually revolve around compliance and credentialing.

Essentially, those who work in healthcare operations management focus on overseeing the facility and staff functions, which play a vital role in the delivery of care.

Operations management is critical in every industry, and healthcare is no exception. At its core, operations management is the planning, organizing, and supervising of internal processes to keep an organization running smoothly.

In the ever-changing healthcare industry, effective operations management is not an option, but a necessity. Without it, it's difficult for a hospital, residential facility, nursing home, doctor's office, or home healthcare organization to provide the quality care services that improve and save lives.

## **Vision**

**To be the ultimate healthcare destination - "Mecca of Medicine"**

## **Mission**

**To provide quaternary care to the community in a compassionate, dignified, and a distinctive manner.**

# EMERGENCY CODES

## Safety Codes

 Code Blue	Cardiac Arrest, Unconscious / Unresponsive Person	 1234
 Code Red	Fire	 7777
 Code Pink	Infant / Child Abduction	 7777
 Code Purple	Physical Altercation	 7777
 Code Grey	Internal Disaster	 7777
 Code Yellow	External Disaster	 7777
 Code Orange	Hazmat Spills	 7777

For Code Blue, Dial 1234  For All Other Codes, Dial 7777  
from any hospital landline number

- Announce the CODE with LOCATION
  - Repeat Message THRICE
- Location should mention Floor, Area, Room No/Bed No.
  - Information will be sent to the CODE responders
    - You will hear a beep
- After the beep record your message with location
  - Repeat your message THRICE
    - Press \*
  - Disconnect call in 5 seconds

## **CHAPTER –2 OBSERVATIONAL LEARNING**

### **DEPARTMENT -WISE LEARNING**

#### **1. IPD**

The patients is referred from either emergency, OPD care or elective admission.

The patient/relative contacts to the admission desk with ARF. The patient details are filled by the staff in the system. Choice of room is suggested by patient/patient's relative and availability is checked for the same. The choice of room is based on availability, tariff, patient requirement.

The patient then has to go for cost estimation and after that patient returns to the desk where the process starts.

The patient is generally categorized on the basis of cash and insurance. For cash patient after the cost estimation patient fills the required documents including the consent form. In case the patient has insurance then they have to approach the insurance desk for required paper clearance. These patients have to submit the Aadhaar card, pan card, policy holder's card and consent form to TPA and front desk.

#### **2. HEALTH4U**

Health4u at Fortis Memorial Research Institute is a one-stop destination for all Lab and Diagnostic tests, Consultation with the Specialist, and further treatment if necessary. It is designed to offer lifestyle interventions and tailor made health screenings for your health. The program is run and supported by specialists and super-specialists from all medical disciplines with an aim to deliver the highest standard of Preventive Medicine for your healthier life.

Tailor Made Screenings are based on your sex, age and lifestyle. The team of health experts can customize your screening schedule by drawing out a range of tests on the completion of a detailed questionnaire and medical examination by a doctor.

Two Types of patients:

- Corporate patients – 76%
- Individual patients – 24%

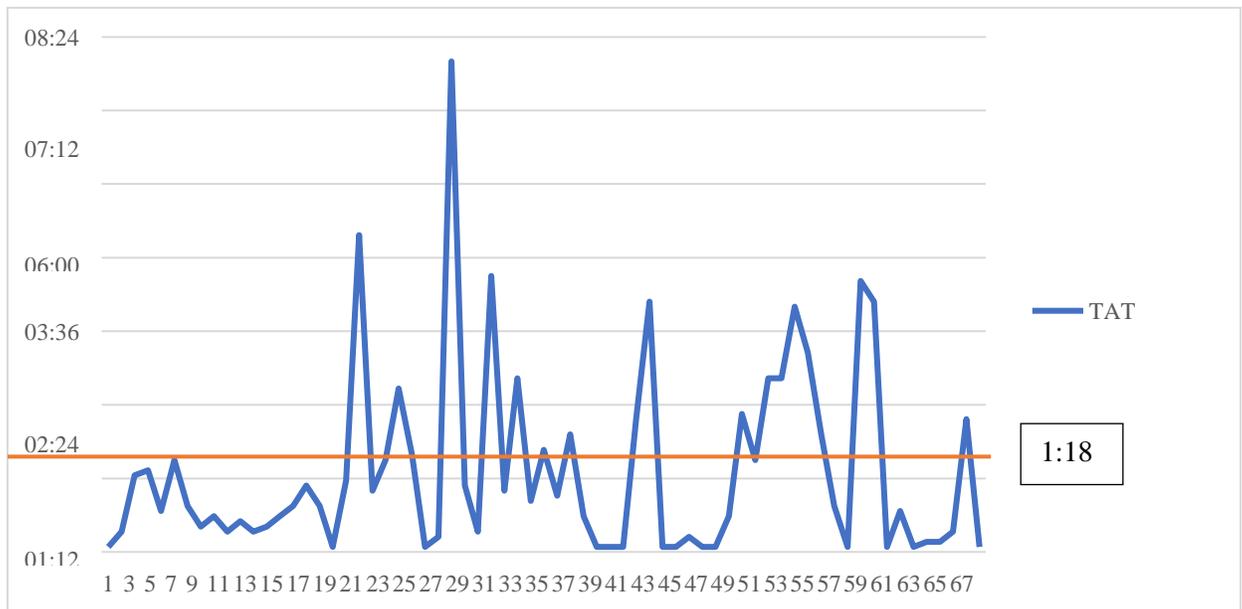
Packages for Individual patients –

- Basic
- Essential
- Lifestyle

- Premium
- Golden Age (above 60 years)

## CHAPTER-3 SPECIFIC FINDINGS

### 1. IPD Ward



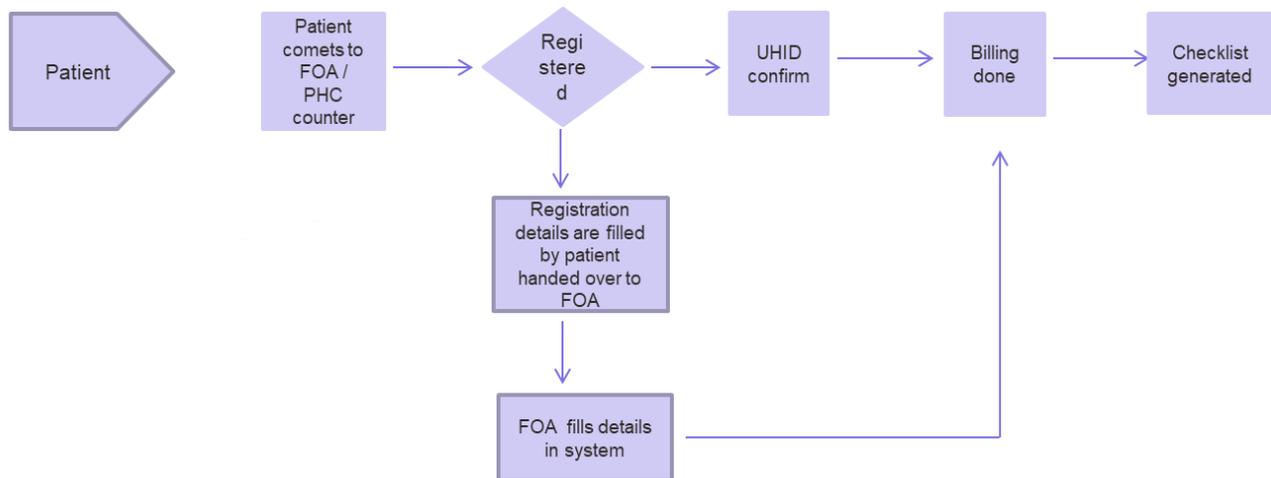
#### Observations

- The entire system was found to be the same, as documented by the hospital. This assures that the staff follows the documented process and no deviation has been noted in the process, as defined by the management.
- Since maximum delay in admission process is caused due to the non – availability of bed, special attention should be focused on improving the bed management system and simultaneously the delay time for the discharged patients.
- Discharged but not vacated patients and stable discharged patients can be provided with a separate waiting area (discharge lounge) where they can wait until the discharge process is completed. Those beds could be arranged once the patient is shifted in the discharge lounge. Once the bill of the discharge patient is cleared and the patient is out from the system, immediately a fresh admission can be entered in the system and the new patient can be shifted to the ward. So to get the detailed solution to this problem a study to know the discharge time and the bottleneck in discharge should be done.

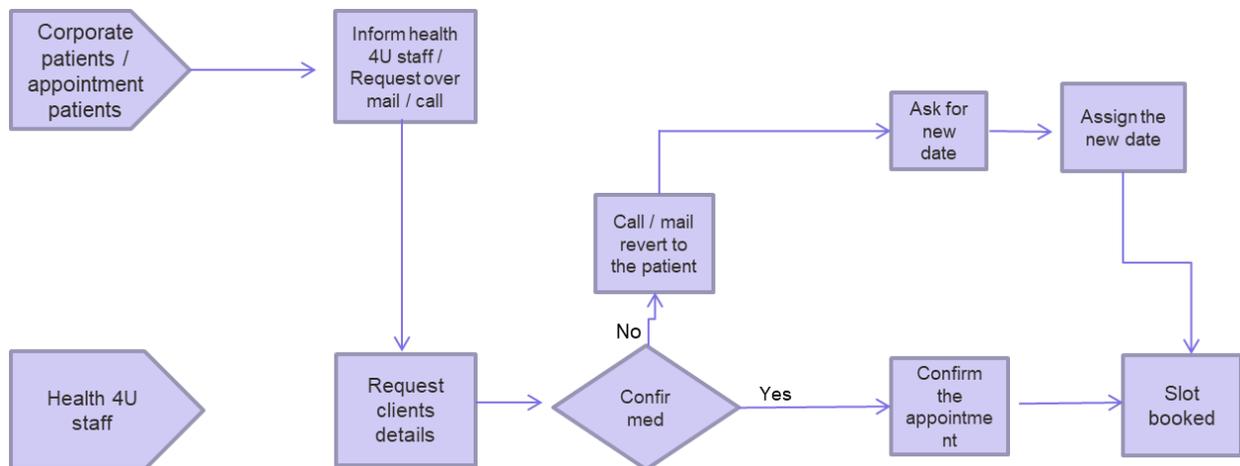
## 2. Health4U

In H4U department appointment scheduling/walk-in, billing process, registration, corporate appointments, preventive health check-up process map was observed. More focus was laid on the flow / process map of patients while performing their health check-up.

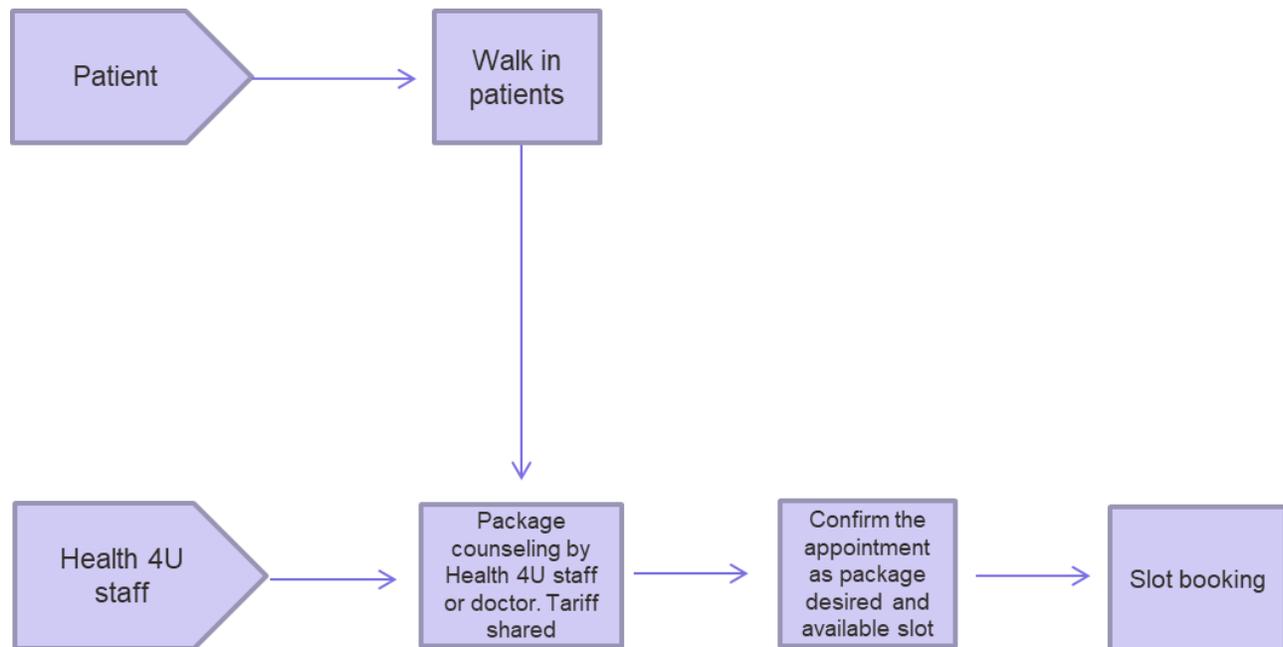
### FLOWCHART REGISTRATION / BILLING PROCESS



### FLOWCHART CORPORATE / APPOINTMENT PATIENTS



## APPOINTMENT SCHEDULING WALK-IN



### 3. OPD

- It was found that major problems like phone enquiry, doctors handwriting in prescription, electronic data capture machine, cashier, account for the problems in outpatient billing process. So for further improvement one needs to concentrate more on those problems.
- The speed and the capacity of the computers used for billing procedure was slow and upgradations should be made.

## **CHAPTER-4 PROJECT REPORT**

### **TITLE:**

A turnaround time study of patients presenting at the Health4u Department of FMRI Gurugram, Haryana.

### **INTRODUCTION:**

### **RATIONALE:**

This study is primarily focused on the H4U department of FMRI, Gurugram which includes data from the arrival of patients to the discharge or transfer of the patients to the referred departments. Consultant in time, doctor's or nurses' assessment time with initial care assessment filled by doctors and nurses were also included. H4U department offer lifestyle interventions and tailor made health screenings for your health. The H4U department is primarily focused on the patients' health and preventing them from future diseases with an aim to deliver the highest standard of Preventive Medicine for healthier life. To improve and evaluate the functioning of the H4U department, this topic was chosen.

### **RESEARCH QUESTION:**

What is the turnaround time and waiting time of the patients and factors affecting TAT and waiting time among the patients of health check-up which lead to more patient complaints and poor feedback.

### **AIM:**

To find the turnaround time and provide feasible solution to reduce the waiting time of the health checkup process at Fortis Memorial Research Institute, Gurugram.

### **Objectives:**

- Map the entire process flow from patient entry till the patient leaves from H4U department.
- Identify areas of delay.
- Identify causes of delay.
- Provide feasible recommendation.

## **MODE OF DATA COLLECTION:**

Data Collection was done through the checklist method. Interviewing the staff, checking the patient's record file.

The data is collected from both primary as well as secondary sources

- Primary source:-
  - Personal observation
- Secondary sources:-
  - Hospital information system (HIS)

## **METHODOLOGY:**

### **Study Design-**

Observational study

### **Study Population-**

The study population included the patients who reported in the Health4u department of FMRI. This study included all the patients for a time period of 30 days.

### **Study area –**

Preventive health checkup department in FMRI.

### **Study Duration-**

The study duration was 30 days.

### **Sampling Technique-**

Simple random sampling was done.

### **Selection Criteria-**

This study included all those patients who were presented for their annual health checkup and excluded those patients who came from OPD.

### **Study Tool -**

The study tool used was a checklist especially prepared for the research study. It recorded the time of various activities like patient in-time, doctor's assessment time, nurses' assessment time, consultant in-time, treatment initiation time, etc.,

**Sample Size -**

50 patients were taken as sample size.

**STATISTICAL TOOL: -**

The tools used in the study are MS-EXCEL and MS-WORD.

MS-EXCEL is used to calculate Average Waiting Time.

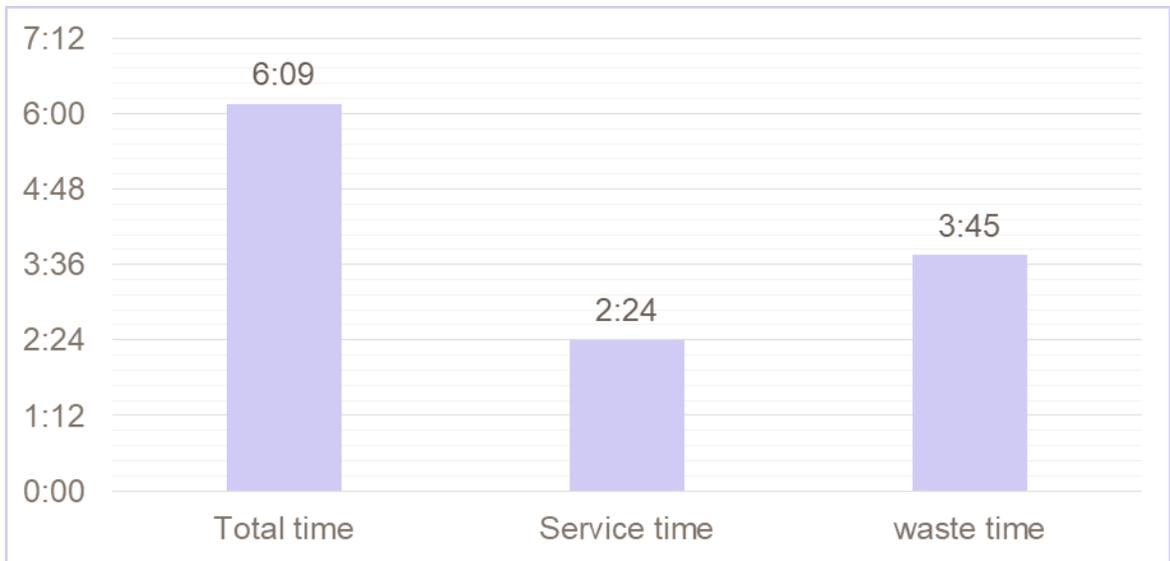
MS-WORD is used prepare a complete projects in words.

**Ethical Consideration –**

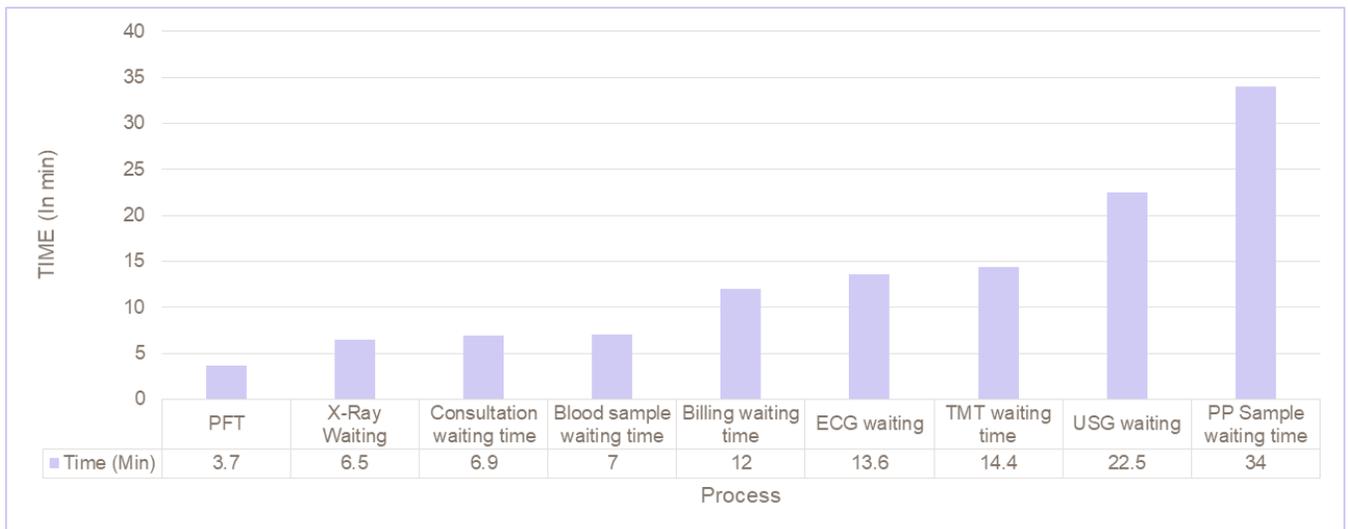
All the information collected was taken under the guidance of the Health4u Department. All information received has been kept confidential.

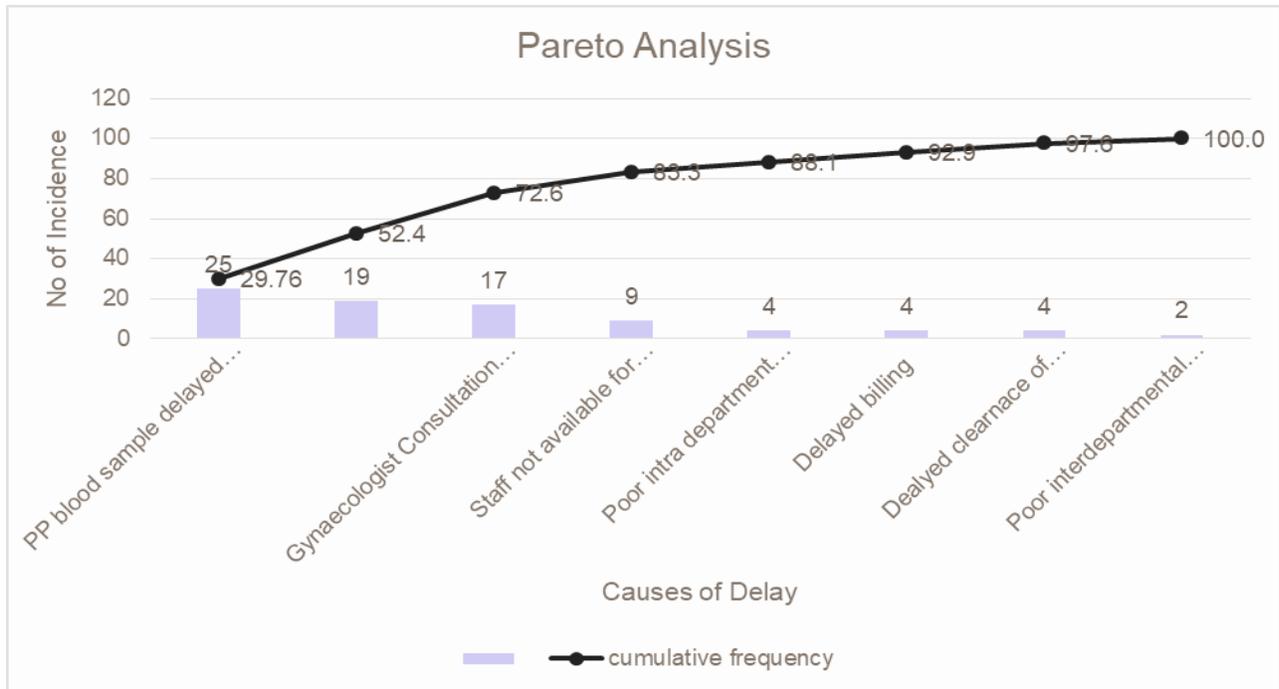
**RESULTS**

1. The average time for the completion of health check-up for 30 patients is 6 Hours 9 minutes out of which 2 hours and 24 minutes are spend on the services and 3 hours 45 min is waste time (waiting time).
2. The standard turnaround time set by the hospital is between 4 hours – 5 hours.
3. Arrival time for 82% of the patient observed was between 8am to 9am. 7% of them arrived before 8 am and rest of the patient's after 9am.



### Waiting time Analysis





Causes of Delay	Number of Cases	frequency	cumulative frequency
PP blood sample delayed due to late USG	25	29.76	29.76
Patient releasing pressure before the test	19	22.62	52.4
Gynaecologist Consultation delayed	17	20.24	72.6
Staff not available for coordination	9	10.71	83.3
Poor intra department coordination	4	4.76	88.1
Delayed billing	4	4.76	92.9
Dealyed clearnace of manual bills	4	4.76	97.6
Poor interdepartmental coordination	2	2.38	100.0
	84		

## Observations

### 1. Gynaecology Consultations

- Gynaecologist is available usually after 1 pm or 2pm.

- Consultation mostly takes place in ECG room therefore delaying the ECG, TMT/Echo.

## **2. Poor Coordination**

- Patient is clueless about the process and where to go next.
- Executives not present at times to guide and handover the files for next investigation.
- Poor team work leading to confusion and more waste time.

## **3. Ultrasound**

- 6-7 patients simultaneously waiting for USG.
- Patient not able to control bladder pressure for longer duration.
- Delayed USG leads to delayed PP blood sample time increasing the idle time of patient.

## **4. Internal medicine consultation**

- Pre consultation time : 2-3 mins
- Post consultation time: 5-10 mins
- Appointment is not given for post consultation, patient is asked to collect the file after 24 hours and consult the doctor resulting in more patients for post consultation at a time on some days. More post consultation appointments delays the pre-consultation after ECG further delaying the TMT/ECHO.
- No queue is formed for consultation
- Staff is not available for queue management leading to confusion and decrease patient satisfaction.

## **ANALYSIS;**

- Patient coordination was missing leading to increased patient waiting time.
- Staff not present all the time.

- Frequent breaks were taken by the staff.
- Reasons for miscellaneous delay do not contribute much to the overall delay but are minor irritants which affect patient satisfaction.
- Non – availability of doctors due to which patient has to comeback some other day.
- VIP patients are given more importance and common patients are being neglected due this and increase their waiting time in the department.
- Doctor timings were not confirmed to the patients.

## **RECOMMENDATIONS;**

The H4U department follows SOP's as set by the hospital and operates smoothly. Doctors and nurses obediently follow all the rules and regulations, and the patients are pleased as well. The thing that can be improved is making appointments for the post-test consultations so as to reduce the waiting time and provide optimum care to the patients.

Patients should be informed for the post consultation during their assessment at the department.

Sometimes coordination is missing, due to less no. of coordinators, which should be increased for the efficient patient handling and smooth work flow of the department.

## **CONCLUSION**

The time spent on various activities in the Health4U department of a hospital was documented to see if proper guidelines were being followed at the department. A positive result was found after the study was done. In the department, the staff was well-trained, and doctors were present. While performing a wide range of activities in the department, the average time also was found satisfying.

# ANNEXURE

## 1. Admission request form

**STOTTIS MEMORIAL RESEARCH INSTITUTE** #1106 **ADMISSION REQUEST FORM**

Elective     Day Care     Emergency (Tick any)

Patient's Name : Mr. Dhara Singh    UHID : 782989  
Age : 64    Gender :  M /  F    Expected ALOS : 2-3 days  
Admitting Doctor : Dr. Anind Kumar  
Diagnosis : \_\_\_\_\_  
Expected date of Admission : 27/5/22  
Procedure : Consultative  
Ward Stay (No. of days): 2    ICU Stay (No. of days): \_\_\_\_\_    Blood Requirement (No. of units): \_\_\_\_\_  
Implants/Stent (Cost) : \_\_\_\_\_  
Investigation : \_\_\_\_\_ (Tick One: (Major / Minor / I  
Consumables : \_\_\_\_\_ (Tick One: (High / Medium / Low / I  
Drugs : \_\_\_\_\_ (Tick One: (High / Medium / Low / I  
PAC Required: \_\_\_\_\_ (Tick One:  IPD /  OPD /  DOT  
Cross Referral (If Applicable) : \_\_\_\_\_ Tick One (Yes / I  
NB :    Date 27/5/22  
1. Emergency = Needs bed on priority    (DD / MM / YYY)  
2. Procedure = Include both Surgical & Non Surgical  
Signature of Admitting Doc \_\_\_\_\_

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**Pre- Procedure Instructions : Only for Procedure patients)**  
Date of procedure : \_\_\_\_\_  
Investigation (to be done before Procedure) : \_\_\_\_\_  
Others \_\_\_\_\_

**Advice Pre-OP Orders**  
Nil Orally From \_\_\_\_\_  
Part Preparation \_\_\_\_\_  
Report to \_\_\_\_\_ at \_\_\_\_\_

**Medication to be administered on admission (Before Procedure) :**  
1. \_\_\_\_\_  
2. \_\_\_\_\_  
3. \_\_\_\_\_

FMRI/FM/IPD-AR/2016/V1.1/18    Signature of Admitting Doctor \_\_\_\_\_

## 2. H4U Checklist



**Fortis MEMORIAL**  
RESEARCH INSTITUTE  
GURUGRAM

**Health Checkup Details**

UNID : 30559901 Patient Name : Mr. Neeraj Tyagi Mobile No : 9910599997

Episode No : 56470/22/111 Doctor Name : Dr. Bela Sharma

Age/Sex : 54 YEAR(S)/Male

BIT No : 111122OPCSO 60068 BIT Date : 17-Mar-2022

PHC Timing : PHC HelpLine No : 30

Package : FMRI LIFESTYLE PACKAGE MALE ABOVE 40 YEARS - FMRI

D.H.  
2-1-22

D.H.  
-DSG  
→ Blood

+MT Echo

Awd - (8)  
PNT - (13)  
Dental  
Eye  
Open

Arun  
and

Sr No.	Investigation (Lac)	Acception No.
1	GLYCOSYLATED HEMOGLOBIN, EDTA WHOLE BLOOD (3180-SRL)(3189)(3180)	PHC-3205492
2	TREAD MILL TEST (TMT) Echo - after cardiology Consultancy	PHC-3205401
3	VITAMIN B12 LEVEL, SERUM (3020-SRL)	PHC-3205494
4	THYROID FUNCTION TEST (4121-SRL)	PHC-3205495
5	CALCIUM, SERUM (4836H-SRL)	PHC-3205496
6	CBC WITH ESR (CBC-PH-ESH) EDTA WHOLE BLOOD/SWEAT (3111-SRL)	PHC-3205497
7	25-HYDROXYVITAMIN D, SERUM (8823-SRL)	PHC-3205498
8	FOUR (4) ANALYSES - SERUM/OTAL AND TOTAL	PHC-3205499
9	AUDIOMETRY PURE TONE (3) LG	PHC-3205500
10	STOOL (OVA & PARASITE) (2367-SRL)	PHC-3205501
11	ELECTROCARDIOGRAPHY (ECG) (1) LEAD	PHC-3205502
12	CORONARY RISK PROFILE (LIPID PROFILE), SERUM (1209AD-SRL)(1209AD)(1203AD)	PHC-3205503
13	IRON/SERUM, SERUM (4866H-SRL)	PHC-3205504
14	PULMONARY FUNCTION TEST (PFT) ROUTINE	PHC-3205505
15	DEXA BONE DENSITOMETRY (SINGLE SITE)	PHC-3205506
16	GLUCOSE, POST-PRANDIAL, FOMMALURINE (1302-SRL)(1302)	PHC-3205507
17	STOOL FOR OCCULT BLOOD (2367-SRL)	PHC-3205508
18	ROUTINE URINE ANALYSIS (2003FW9-SRL)	PHC-3205509
19	ABO GROUP & RH TYPE, EDTA WHOLE BLOOD (5100-SRL)	PHC-3205510
20	KIDNEY PANEL (4112-SRL)	PHC-3205511
21	LIVER FUNCTION TEST (4138-SRL)	PHC-3205512
22	WHOLE ABDOMEN ULTRASOUND	PHC-3205513
23	CHEST X-RAY (PA VIEW)	PHC-3205514
24	PHOSPHORUS, SERUM (1501H-SRL)	PHC-3205515
25	BLOOD, FASTING, PLASMA / URINE (1102) (SRL)	PHC-3205516




A unit of FORTIS HOSPITALS LIMITED

Regd. Office: Escorts Heart Institute Pvt. Research Centre, Okhla Road, New Delhi-110 028 (India)  
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PAN No: AAAD03719W



#### 4. Data collection method

PROCESS		FMRI lifestyle package female below 40 years			Waiting time (in min)
1	Arrival	9:05			
	waiting time (Waste time)	9:05 - 9:17	12 min		12
	Billing	9:17 - 9:20	3 min		
	waiting time (Waste time)	9:20 - 9:26	6 min		6
2	X-Ray	9:26 - 9:30	4 min		
	waiting time (Waste time)	9:30 - 9:32	2 min		2
3	Blood	9:32 - 9:44	12 min		
	waiting time (Waste time)	9:44 - 10:09	35 min		35
4	Stool/urine	10:10 - 10:12	-	2 min	
	waiting time (Waste time)	10:12 - 10:20	-	8 min	8
5	ECG	10:20 - 10:22	-	2 min	
	waiting time (Waste time)	10:22 - 10:29	-	7 min	7
6	Doctor pre consultation	10:29 - 10:32	-	3 min	
	waiting time (Waste time)	10:32 - 10:33	-	1 min	1
7	Eye/Dental	10:33 - 10:59	-	26 min	
	waiting time (Waste time)	10:59 - 11:00	-	1 min	1
8	PFT	11:00 - 11:08	-	8 min	
	waiting time (Waste time)	11:08 - 12:20	-	1 hour 12 min	72
9	TMT	12:20 - 12:38	-	18 min	
	waiting time (Waste time)	12:37 - 1:11	-	34 min	34
10	USG	1:11 - 1:19		8 min	
	waiting time (Waste time)	1:19 - 1:30		11 min	11
11	Lunch	1:30 - 2:20		50 min	
	waiting time (Waste time)	2:20 - 2:28		8 min	8
12	PAP smear/ Gynae	2:28 - 3:20		52 min	
13	ENT	3:20 - 3:38		18 min	
	waiting time (Waste time)	3:38 - 3:45		7 min	7
13	PP sample	15:50			
					3 hours 23 min

## 5. Time duration guidelines of H4U department at FMRI.

The area dedicated to Preventive Health is called 'H4U' at FMRI.
<b>Time Duration for the Packages:</b>
• The Basic package will be covered in 4-5 hours
• The Essential package will be covered in 7-8 hours.
• The Lifestyle package will be covered in 8-9 hours.
• The Golden age package will be covered in two days (One day for tests and the other day consultations will be

## REFERENCES / REVIEW OF LITERATURE

1. <https://www.fmri.in/about-us/>
2. <https://pubmed.ncbi.nlm.nih.gov/18712032/>
3. [https://www.researchgate.net/publication/234042291\\_REDUCTION\\_OF\\_TURNAROUND\\_TIME\\_OF\\_IN-PATIENTS\\_IN\\_A\\_PRIVATE\\_HOSPITAL\\_CHENNAI\\_A\\_SIX\\_SIGMA\\_APPROACH](https://www.researchgate.net/publication/234042291_REDUCTION_OF_TURNAROUND_TIME_OF_IN-PATIENTS_IN_A_PRIVATE_HOSPITAL_CHENNAI_A_SIX_SIGMA_APPROACH)
4. [https://www.researchgate.net/publication/322983648\\_Improving\\_the\\_Operational\\_Efficiency\\_of\\_oPD\\_using\\_Lean\\_Method-Value\\_stream\\_Mapping](https://www.researchgate.net/publication/322983648_Improving_the_Operational_Efficiency_of_oPD_using_Lean_Method-Value_stream_Mapping)